

STEFANOVA, Y. P.

All-Union Institute of Experimental Veterinary Medicine

"On the nature of immunity in anthrax."

"The influence of trauma and the significance of the nervous system  
in immunity in anthrax."

Report III

SO: Veterinariya 26(9), 1949, p. 15

STEFANOVA, E. P.

27287: O sushchnosti immuniteta pri sibirskoy yazve. Soobshch. E. P. STEFANOVA vliyanie travmy znachenie nervnoy sistemy v immunitete pri sibirskoy yazve. veterinariya, 1949 No. 9, -s. 15-19.

SO: Letopis' Zhurnal'nykh statey, Vol. 36, 1949.

STEFANOVA, Ye. P

LC

182T79

USSR/Medicine - Infectious Diseases  
(Veterinary) May 51

"Nature of Immunity in Anthrax. Role of the Vegetative Nervous System in Infection and Immunity. Communication No 4," Ye. P. Stefanova, All-Union Inst Exptl Vet Med

"Veterinariya" Vol XXVIII, No 5, pp 36-38

Some humans and animals cannot be immunized: They are refractory because of the tonus of their vegetative nervous syst. Following experimental results show that the vegetative nervous syst is involved in immunization. Rabbits exhibiting local reaction

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182T79

USSR/Medicine - Infectious Diseases  
(Veterinary) (Contd) May 51

to subcutaneous injection of adrenalin could not be immunized against anthrax with Tsenkovskiy's 2d vaccine (I). If after original vaccination I is injected into the superior cervical sympathetic ganglion, anthrax sepsis develops and rabbits perish of anthrax produced by dose of vaccine which is otherwise harmless. Same thing happens when rabbits vaccinated with I receive injections of atropine for 3 days in succession.

TERENT'YEV, F. A., STEFANCUA, YE. F.

Nervous System

Role of the nervous system in immunogenesis in infectious diseases. Dokl. Ak. sel'khoz.  
17 No. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 195~~7~~<sub>2</sub>, Uncl.

1. TEREENT'YEV, F. A., Prof., STEFANOVA, YE. P.
2. SSSR (600)
4. Vaccination
7. Role of the nervous system in immunogenesis and the new principle of vaccination by inactivated microbe culture.  
Trudy Vses. inst. eksp. vet. 19 No. 1, 1952
9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

TERENT'YEV, F.A.; STEFANOVA, Ye.P.

Role of the nervous system in immunogenesis in vaccination with  
dead bacterial cultures. Zhur.mikrobiol.epid.i immun. no.2:20-24  
F '54. (MLRA 7:3)

1. Iz nauchno-proizvodstvennoy laboratorii Ministerstva sovkhozov  
RSFSR. (Vaccination) (Anthrax) (Nervous system)

STEFANOVA, Ye.P.

Significance of neural reception in inoculation with the first  
TSenkovskii vaccine. Zhur.mikrobiol.epid.i immun. no.8:88 Ag '54.  
(MLRA 7:9)

1. Iz Nauchno-proizvodstvennoy laboratorii Ministerstva sovkhovov  
RSFSR.  
(VACCINATION)

✓  
TERENT'YEV, F.A., professor; STEFANOVA, Ye.P., kandidat veterinarnykh nauk.

To the editors of "Veterinariia". Veterinariia 32 no.3:91 Mr '55.  
(VACCINES) (MIRA 8:4)

TERENT'YEV, F.A.; STEFANOVA, Ye.P.

Overheating the body as one of the causes of "pulmonary" diseases  
in lambs in steppe regions, Veterinariia 32 no.8:54-57 (MLRA 8:10)

Ag '55.

1. Nauchno-proizvodstvennaya laboratoriya po bor'be s boleznyami mo-  
lodnyaka sel'skokhozyaystvennykh zhiivotnykh Ministerstva sovkhozev  
RSFSR.

(SHEEP--DISEASES) (HEAT--PHYSIOLOGICAL EFFECT)

STEFANOVA, Ye.P., kand.veterinarnykh nauk

Anthrax infection and immunity. Trudy VIEV 22:177-184 '59.  
(MIRA 13:10)  
(Anthrax)

BULGARIA

YONCHEV, V., and STEFANOVA, P.; Higher Medical Institute (VMI) in Plovdiv, Department of Psychiatry (Department head: Prof Iv. VAPTSAROV)

"A Study of the Effects of Nicotinic Acid on Neurotic Headache in Students."

Sofia, Nevrologiya, Psikhatriya i Nevrokhirurgiya, Vol 5, No 2, 1966, pp 94-101

Abstract [authors' Russian and English summaries, modified]: A group of 34 students, with neurotic complaints and headache as the main symptom, were divided into four groups. The first group was given a placebo. The 2nd, 3rd and 4th groups received, respectively, 15, 25 and 50 mg of nicotinic acid T.I.D., for five days. Examination of the higher nervous activity was made at the beginning and end of treatment, by means of the modified Ivanov-Smolenskiy speech motor method. The results encourage the use of nicotinic acid, in combination with other drugs, in the treatment of neurotic headache in students. 24 Soviet-bloc and 15 Western references. Manuscript received in Aug 65.

1/1

*Stefanova, Z.*

3

VELICHKOV, V.  
SURNAME (in case); Given Name

Country: Bulgaria

Academic Degrees: not indicated

Affiliation: not indicated

Source: Sofia, Khirienn, No 2, Mar/Apr 61, pp 37-41.

Date: "Observations on the Efficacy of the Live Polio Trivaccine."

Co-authors:

MICKOV, G. Sofia  
STEFANOVA, Z.  
MINOV, N.

MITOV, G.; VELICKOV, V.; STEFANOVA, Z.; NINOV, N.; KAPRELIAN, G.; PANAIOTOV, P.

On the problem of the effectiveness of live polio vaccine and  
the eradication of poliomyelitis in Bulgaria. Nauch. tr. vissh.  
med. inst. Sofia 43 no. 4: 33-37 '64

1. Chair of Microbiology and Virology (Director: Prof. Sv.  
Bardarov).

STEFANOVA, Zdenka; ROMANOVSKY, A.

Induction of ovulation in Czechoslovak species of Rana out of the breeding season by means of pituitary implantations and by the injections of mammalian hormones. Folia biol. 7 no.3:220-223 '61.

1. Department of Experimental Zoology, Faculty of Science,  
Charles University, Prague.  
(OVULATION exper.) (PITUITARY GLAND extracts)  
(PITUITARY GLAND, ANTERIOR hormones)

VELICHKOV, V.; MITOV, G.; STEFANOVA, Z.; NINOV, N.

Virological examinations during the use of live poliomyelitis vaccines. Nauch. tr. vissh. med. inst. Sofia 41 no.1:85-90 '62.

1. Predstavena ot prof. Sv. Burdarov.  
(POLIOVIRUS VACCINE ORAL)

GERL, Friderik, prof., ing.; STEFANOVIC, Aleksandar; VASIC, Pavle

Development of food industry. Alm hem ind 125-155 '59.

STEFANOVIC, Aleksandar (Beograd, Dositejeva 17)

The state of livestock fodder industry and its tentative development.  
Tehnika Jug 16 no.11:2042-2046 '61.

1. Sekretar Saveta prehrambene industrije Savezno industrijske komore,  
Beograd.

STEFANOVIC, Aleksandar (Beograd, Dositejeva 17)

Some problems of the tobacco industry and its tentative development.  
Tehnika Jug 16 no.12:2231-2235 '61.

1. Sekretar Saveta prehrambene industrije Savezne industrijske komore,  
Beograd.

STEFANOVIC, Aleksandar (Beograd, Dositejeva 17)

State, problems, and prospects of the production and processing of flour. Tehnika Jug 18 no.9:Suppl.: Prehran ind 17 no.9:1741-1747 S '63.

1. Zamenik sekretara Saveza za poljoprivredu i prehrambenu industriju Savezne privredne komore, Beograd.

STEFANOVIC, A.

The determination of atmospheric carbon monoxide. Glass.hig.inst.

Beogr. 4 no.1-2:77-85 Jan-June '55.

(CARBON MONOXIDE, determ.

in air, method, use of palladium chloride, results(Ser))

(ELEMENTS,

palladium chloride, use in determ.of carbon monoxide in  
air, results(Ser))

STEFANOVIC, Ana

Chemical determination of free silicon dioxide in dusts and  
ores. Glasn. hig. inst., Beogr. 4 no.3-4:81-88 July-Dec 1955.

(SILICON,  
dioxide, determ. in dusts & ores, chem. technic (Ser))  
(DUSTS,  
silicon dioxide determ., chem. technic (Ser))

SIMIC, Vojislav, M.; STEFANOVIC, Ana N.

A mode for the representation of results in the quantitative x-ray diffraction analysis of quartz. Glas. hig. inst. 10 no.1/2:41-45  
Ja-Je '61.

1. Institut za fiziku Prirodnomatematickog fakulteta u Beogradu  
~~Odjeljenje~~ medicine rada Higijenskog instituta NRS u Beogradu.

(QUARTZ chem)

5

S/081/62/000/005/012/112  
B158/B110

AUTHORS: Stefanovic, B., Janich, T.

TITLE: Separation of cis- and trans-isomers of inorganic compounds by paper chromatography and the effect of configuration on the  $R_f$  value

PERIODICAL: Referativnyi zhurnal. Khimiya, no. 5, 1962, 113, abstract 5V144 (Glas. Srpska AN, v. 233, 1959, 117 - 122)

TEXT: With the aim of examining cis- and trans-isomers of inorganic complex compounds, the separation of the isomers by paper chromatography is studied. It is established that the cis-form has higher  $R_f$  values than the trans-form. On this basis, a chromatographic method is suggested for determining the configuration of cis- and trans-isomeric compounds. ✓

Abstracter's note: Complete translation.

Card 1/1

PODVINEC, S.; STEFANOVIC, B.; DORDEVIC, S.; SIMONOVIC, M.

Preventive measures in noise control. Higijena, Beogr. 12 no.4:305-316 '60.

(NOISE prev & control)

ARSIC, Trajko [translator]; STEFANOVIC, Bosko [translator]

Activities of the Italian State Railroads and the Austrian Federal Railroads in 1960-1961. Zeleznice Jug 18 no.11/12:52-59 '62.

MITROVIC, Aleksandar, aps. med.; SIMONOVIC, Branimir, d-r; STEFANOVIC, Branka,  
med. sestra; POPOVIC, Stanka, med. sestra

Acquired immunity in plants. II. Certain characteristics of anti-  
Rh (anti-D) antibodies isolated from plants. Voj. san. pregl,  
Beogr. 17 no.2:147-152 '60.

(PLANTS)

(Rh FACTORS)

STEFANOVIC, Brozidar, dr; MILUTINOVIC, Slobodan, dr.

Audiometry in workers in factories with noisy conditions. Med.  
glasn. 9 no.2-3:98-101 Feb-Mar '55.

1. Otorinolaringoloska klinika Medicinskog fakulteta u Beogradu  
(upravnik prof. dr. S. Podvinec)

(HEARING TESTS,

audiometry of factory workers)

STEFANOVIC, B., Dr.; SIMONOVIC, M., Dr.

Tracheotomy in poliomyelitis. Med. glasn. 13 no.2:61-64 Feb 59.

1. Otorinolaringoloska klinika Medicinskog fakulteta u Beogradu  
(Upravnik: prof. dr S. Podvinec).

(POLIOMYELITIS, surg.  
tracheotomy (Ser))

(TRACHEA, surg.  
tracheotomy in polio. (Ser))

EXCERPTA MEDICA Sec 8 Vol 13/5 Neurology May 60

2353. TRACHEOSTOMY IN BOTULISM - Trachéotomie dans le botulisme -  
Stefanovic B., Stefanovic P. and Mijovic R. Clin. d'Oto-  
rhinolaryngol., Fac. de Méd., Belgrade - ANN. OTO-LARYNG. (Paris)  
1959, 76/1-2 (82-85)

Six cases are reported. A tracheostomy was performed in 3 cases. Tracheostomy  
is indicated to prevent asphyxia, to facilitate removal of tracheobronchial aspira-  
tions and secretions and to prevent aspiration of pharyngeal secretions.

Zellweger - Iowa City, Ia. (L,6,7,8,11)

STOJIMIROVIC, Branislav; STEFANOVIC, Bozidar

Mounier-Kuhn syndrome - report of a case. Srpski arh. celok. lek.  
87 no.6:593-599 Je '59.

1. Interna klinika B Medicinskog fakulteta u Beogradu, upravnik:  
prof. dr Radivoje Berovic; Otorinolaringoloska klinika Medicinskog  
fakulteta u Beogradu, upravnik: prof. dr Sredko Podvinec.

(ETHMOID SINUS dis.)

(BRONCHIECTASIS compl.)

STEFANOVIC, Bozidar; ILIC, Gedomir; CVEJIC, Dusan; SIMONOVIC, Miodrag.

Mycosis of the pharynx and tonsils. Srpski arh. celok. lek. 88  
no.1:69-74 Ja '60.

1. Otorinolaringoloska klinika Medicinskog fakulteta Univerziteta  
u Beogradu, Upravnik; prof. dr Sredko Podvinec.

(MYCOSES)

(PHARYNX dis.)

(TONSIL dis.)

STEFANOVIĆ, Božidar

Yugoslavia

Docent Dr

Clinics of Otorhinolaryngology of the Medical  
Faculty — Belgrade (Otorinolaringološka klinika  
Medicinskog fakulteta — Beograd)

Belgrade, Medicinski Pregled, No 8, 1962, pp 457-458.

"Larynx Cancer In Women."

Co-authors:

- DORĐEVIĆ, Miroslav Dr, Clinics of Otorhinolaryngology  
of the Medical Faculty — Belgrade (Otorinolaringološka  
klinika Medicinskog fakulteta — Beograd),
- BEKERUS, Miloš Dr, Clinics of Otorhinolaryngology of the  
Medical Faculty — Belgrade.

TOMIC, Bratislav, dots., dr; STEFANOVIC, Bozhidar, dots., dr; MANOJLOVIC-  
BOKONJIC, Olga, dr

Physical therapy of chronic sinusitis. Med. glas. 16 no.3:135-138  
Mr '62.

1. Institut za fizikalnu meditsinu i rekhabilitatsiju Meditsinskog  
fakulteta u Beogradu (Upravnik: prof. dr A. Rotovic)

(SINUSITIS ther) (PHYSICAL THERAPY)

S

YUGOSLAVIA

Bozidar STEFANOVIC and Stevan CVETKOVIC, Oto.rhinolaryngology Clinic of  
Medical Faculty of University (Otorinolaringoloska klinika Medicinskog  
Fakulteta Univerziteta) Head (Upravnik) Prof Dr Srecko PODVINEC,  
Belgrade.

"Elongated Styloid Process and Glossopharyngeal Neuralgia."

Belgrade, Srpski Arhiv za Celokupno Lekarstvo, Vol 90, No 11, Nov 62; pp  
1109-1113.

Abstract [German summary modified]: Report on 4 cases of glossopharyngeal  
neuralgia due to anomalously long styloid process (as found in 4% of  
autopsies but thought to remain asymptomatic in most of cases) impinging  
on nerve; author feels that many refractory cases of painful "otitis"  
would be cured by excision of process or section of nerve. In the 4  
cases, all symptoms were alleviated by surgery. Rentgenogram, 2 Yugoslian  
and 1 Western references.

1/1

STEFANOVIC, Bozidar, doc.dr.; SPALAJKOVIC, Mirjana, dr.

Our experience with the treatment of frontal sinusitis with orbital exteriorization. Med.glas. 17 no.8:334-336 Ag-S'63

1. Otorinolaringoloska klinika Medicinskog fakulteta Univerzитета u Beogradu; upravnik: prof.dr. S.Podvinec.

S

STEFANOVIC, Bozidar; POPOVIC, Vladeta; CVETKOVIC, Stevan; DORDEVIC, Miroslav

Malignant tumors of the maxilla. Srpski arh. celok. lek. 91  
no.9:819-824 S'63

1. Otorinolaringoloska klinika Medicinskog fakulteta Univer-  
ziteta u Beogradu (upravnik: prof.dr. Srecko Podvinec) i Ra-  
dioloski institut Medicinskog fakulteta Univerziteta u Beo-  
gradu (upravnik: prof.dr. Bogolub Bosnjakovic).

\*



KOSANOVIC, B., prof. dr.; STAFANOVIC, B., dr.; MICANOVIC, V., dr.

Primary cancer of the gallbladder. Med. arh. 18 no.2:23-29  
Mr-Je '64.

1. Prva hirurska klinika Medicinskog fakulteta Beograd (Upravnik:  
Prof. dr Bogdan Kosanovic).

GENCIC, Milivoje; STEFANOVIC, Branislav

Ruptured ileum caused by a blow on the head. Med. pregl. 17  
no.10:589-591 '64.

1. I. hirurska klinika Medicinskog fakulteta u Beogradu  
(Upravnik: Prof. dr. Ljubomir Rasovic).

STEFANOVIC, Bozidar; SAVIC, Dragoslav; DJOKOVIC, Caslav.

Rare localizations of sinus and head osteomas. Med. pregl.  
18 no. 5:171-175 ' 65.

1. Otorinolaringoloska klinika Medicinskog fakulteta Univerziteta u Beogradu (Upravnik: Prof. dr. Srecko Podvinec).

STEFANOVIC, Bozidar, doc. dr.; DORDEVIC, Miroslav, dr.

The problem of specialization in the field of otorhinolaryngology in Serbia. Med. glas. 19 no.6:162-163 JI-Ag ' 65.

1. Otorinolaringoloska klinika Medicinskog fakulteta u Beogradu (Upravnik: prof. dr. S. Podvinec).

GENCIC, M.; STEFANOVIC, B.; MICANOVIC, V.

Apropos of 3 cases of omental torsion. Acta chir. Jugosl. 12 no.1:  
42-47 '65.

1. I hirurska klinika Medicinskog fakulteta u Beogradu (Upravnik  
prof. dr. Ij. Rasovic).

GVEJIC, Dusan; STEFANOVIC, Bozhidar; SPALAJKOVIC, Mirjana

2 cases of deaf-mutism. Srpski arh. celok. lek. 93 no.3:  
305-308 Mr ' 65.

1. Otorinolaringoloska klinika Medicinskog fakulteta Univerziteta  
u Beogradu (Upravnik: prof. dr. Srećko Podvinski).

STEFANOVIC, Branislav

Surgical treatment of adrenocortical adenoma in Cushing's syndrome. Med. pregl. 18 no. 3:117-120 ' 65.

1. I hirurska klinika Medicinskog fakulteta Univerziteta u Beogradu (Upravnik: Prof. dr. Ljubomir Rasovic).

YUGOSLAVIA

Burica STEFANOVIC, Chief (Sef) Department of Obstetrics and Gynecology (Ginekolosko-akusersko odeljenje) and Natalija MILOVANOVIC, Chief, Department of Internal Medicine (Unutrasnje odeljenje) General Hospital (Opsta bolnica), Negotin.

"Rare Case of Primipara Vetusta, 43-Year-Old Rachitic Dwarf."

Belgrade, Srpski Arhiv za Celokupno Lekarstvo, Vol 91, No 2, Feb 63; pp 223-226.

Abstract [German summary modified]: Unusual finding of pregnancy in rachitic dwarf (height 102 cm.) at age 43 primigravida and primipara (Cesarean) after 19 years of normal married life. Child was poorly cared for (abject poverty; undernourishment; rickets) and died 8 months later. Two photographs of patient; 4 Yugoslav and 1 Western reference.

1/1

OKUROV, Stanislav; JELACIC, Olga; BRANKOVAN, Konstantin; STEFANOVIC,  
Branislav

Contribution to the problem of bronchogenic cysts. Apropos  
of a case of bronchial cystadenoma. Srpski arh. celok.lek.  
91 no.9:853-857 S'63

1. Hirurska klinika Medicinskog fakulteta Univerziteta u  
Beogradu (upravnik: prof. dr. Bogdan Kosanovic) i Institut  
za patologiju i sudsku medicinu VMAOJNA (nacelnik:nuk.prof.  
dr. Konstantin Brankovan).

\*

KOSANOVIC, Bogdan; STEFANOVIC, Branislav; ZECOVIC, Boridar

Intrathoracic neuroma. Srpski arh. celok. lek. 91 no.12:1223-1227  
D '63.

1. 1 hirurska klinika Medicinskog fakulteta Univerziteta u Beogradu  
(Upravnik: prof. dr. Bogdan Kosanovic).

GENCIC, Milivoje; STEFANOVIC, Branislav

Traumatic amputation neuroma cured by interscapulo-thoracic  
amputation. Med. pregl. 17 no.8:443-445 '64

1. I hirurska klinika Medicinskog fakulteta u Beogradu  
(Upravnik: Prof. dr. Ljubomir Rasovic).

YUGOSLAVIA

BUKUROV, Stanislav; GLIDZIC, Vukasin; STEFANOVIC, Branislav; and NAUMOVIC, Dragoslava, First Surgical Clinic of Medical Faculty of the University (I Khirurska Klinika Medicinskog Fakulteta Univerziteta); Head (Upravnik) Prof Dr Ljubomir RASOVIC, Belgrade

"Immediate Humoral Changes During Shock"

Belgrade, Srpski Arhiv za Celokupno Lekarstvo, Vol 94, No 4, Apr 66; pp 307-322

Abstract: [German summary modified] Data obtained during close monitoring of 18 patients before, during and after major operations. Diagnosis, 17-keto and 17-hydroxy steroids, creatinine clearance, serum proteins, blood urea nitrogen, serum potassium sodium and chloride and alkaline reserve. The changes are tabulated and discussed, with suggestions about measures which may speed recovery and prevent drawn-out convalescence. 10 tables, 1 Soviet, 7 Western references. Manuscript received 15 Dec 65.

STEFANOVIC, D.; Mladenovic, M.

"Geophysical prospecting of the Liverovici Accumulating Lake."  
P. 225. (GLASNIK. SERIJA A: MINERALOGIJA, GEOLOGIJA, PALFON-  
TOLOGIJA. No. 5, 1952. Beograd, Yugoslavia.)

SO: Monthly List of East European Accessions, (EEAL), LC,  
Vol. 3, No. 12, Dec. 1954, Uncl.

ROOK, Arthur J., dr.; STEFANOVIC, Danilo

Two cases of trichoepithelioma. Srpski arh. celok. lek.  
84 no.9:1075-1078 Sept 56.

1. Dermatoloska klinika Medicinskog fakulteta u Kembridju;  
Upravnik; dr. Arthur J. Rook. Dermatoveneroloska klinika  
Medicinskog fakulteta u Beogradu; Upravnik; dr. Sima Ilic.  
(SKIN NEOPLASMS, case reports  
trichoepithelioma (Ser))

STEFANOVIC, Durica, Dr.

Rupture of uterus treated in the Gynecological and Obstetrical  
Department of the Clinical Hospital at Sarajevo. Med. arch.,  
Sarajevo 9 no.4:97-106 July-Aug 55.

1. Ginekolosko-akusersko odjeljenje Klinicke bolnice u Sarajevu  
Sef: primarius dr. Jovo Bokanjic.  
(UTERUS, rupt.  
statist. (Ser))

STEFANOVIC, D.

Stefanovic, D.; Hranisavljevic, M. "Reactive properties of N,N-bisurethanes." p. 481.  
(Priroda. Vol. 18, no. 8, 1953. Zagreb).

SO: Monthly List of East European Accessions, Vol. 3, no. 3. Library of Congress. March 1954.  
Uncl.

STEFANOVIC, D.

Stefanovic, D.; Bojanic, J.; Vandjel, V. "Preparation of symmetrical bisamides." p. 579.  
(Priroda. Vol. 18, no. 9, 1953. Zagreb)

SO: Monthly List of East European Accessions, Vol. 3, no. 3. Library of Congress. March 1954.  
Uncl.

STEFANOVIC, D. ; STEFANOVIC, M. ; MILANOVIC, M.

STEFANOVIC, D. ; Stefanovic, M. ; MILANOVIC, M. Reactions of bisamides. VII.  
Condensation of aliphatic aromatic bisamides with 4-oxo-2thion-thiazolidine (rhodanine)  
p. 313.

Vol. 20, no. 5, 1955

GLASNIK

Beograd, Yugoslavia

So: Eastern European Accession Vol. 5 No. 4 April 1956

STEFANOVIC, D. ; JANJIC, T. ; CRNOJEVIC, R.

STEFANOVIC, D. ; JANJIC, T. ; CRNOJEVIC, R. New methods for separation of some cation groups by paper chromatography. p. 343.

Vol. 20, no. 5 1955  
GLASNIK  
Beograd, Yugoslavia

So: EASTERN EUROPEAN ACCESSION Vol. 5 No. 4 April 1956

STEFANOVIC, D.

SCIENCE

Periodical: GLASHNIK. Vol. 20, no. 7, 1955.

STEFANOVIC, D., and others. Preparation of symmetrical bisamides containing condensed, heterocyclic, and alicyclic rings in an aldehyde sidue. I. p. 417.

Monthly List of East European Accessions (EEAI) EC, Vol. 8, no. 3  
March 1959 Unclass.

STEFANOVICH D.

E-2

SERBIYA/Organic Chemistry. Synthetic Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19128

Author : Stefanovich, Mikhailovich, Vandzhel, Boyanovich.

Inst :  
Title : By Products Formed at the Synthesis of Diamides by the  
Condensation of Aldehydes and Amido Acids in Acetic  
Anhydride.

Orig Pub: Glasnik Khim. drushtva, 1955, 20 No 7, 439-452

Abstract: At the condensation of 9-anthracenealdehyde (I),  $C_6H_5CHO$  (II),  $\alpha$ -thiophenealdehyde or 3-pyrenealdehyde (I) with benzamide (III) in  $(CH_3CO)_2O$  (IV) under conditions described previously ( $100^\circ$ , 1.5-5 hours) (RZhKhim., 1956, 68259), besides 9-anthracenylidene-, yield 11.6-37.9%; benzylidene-, yield 58.9%; -thiophenylidene-, yield 65.5%; and corresponding 3-pirenylidene N,N-bis-benzamide, yield 60.4% are obtained acetylbenzamide (V), yield

Card : 1/3

STEFANOVICH D.

E-2

SERBIA/Organic Chemistry. Synthetic Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19129.

Author : Stefanovich, Boyanovich, Vandzhel.

Inst :  
Title : On the Reaction Ability of Diamides. VIII. Condensation of Para-substituted Diamides with Compounds, Containing an Active Methylene Group.

Orig Pub: Glasnik khem. drushtva, 1955, 20, No 8, 511-522

Abstract: In the course of the previous works (see report VII, RZhKhim. 1957, 19243) studies were made of the condensation of diamides  $\gamma$ -RC<sub>6</sub>H<sub>4</sub>CH(NHCOCH<sub>3</sub>)<sub>2</sub> (I) with substances containing an active CH<sub>2</sub>-group: with ethyl esters of nitroacetic, (II), acetoacetic (III), cyanoacetic (IV) acids; and CH<sub>2</sub>(COOC<sub>2</sub>H<sub>5</sub>)<sub>2</sub> (V). I (R=NO<sub>2</sub> or (CH<sub>3</sub>)<sub>2</sub>N) does not react with II and III. At the reaction of I (R=Cl) with II and III only one amide group is detached

Card : 1/4

SERBIA/Organic Chemistry. Synthetic Organic Chemistry.

E-2

Abs Jour: Ref Zhur-khimiya, No 6, 1957, 19129

and the corresponding ethyl esters  $\beta$ -acetamino- $\alpha$ - $\alpha$ -chlorophenyl- $\alpha$ -nitropropionic (VI) and  $\beta$ -acetamino- $\alpha$ - $\alpha$ -chlorophenyl- $\alpha$ -acetylpropionic acid (VIII) are formed. Condensation of I ( $R=NO_2$ ) with II, III and V yields a crystalline substance as the main product, melting at  $130^\circ$ ; inasmuch as this substance is easily split into the starting I ( $R=NO_2$ ) and  $\alpha$ -nitrobenzaldehyde (VIII) it is assumed that it presents a molecular compound I ( $R=NO_2$ ) and VIII (2:1). Condensation of I ( $R=(CH_3)_2N$ , Cl,  $NO_2$ ) with IV leads to the corresponding ethyl esters of  $\alpha$ -substituted arylacrylic acids  $\alpha$ - $RC_6H_4CH=C(R')COOC_2H_5$  (IX), where ( $R'=CN$ ,  $R=(CH_3)_2N$ , Cl,  $NO_2$ ) with the yield lowered in the order  $R=N(CH_3)_2$ , Cl,  $NO_2$ . In the case of I ( $R=(CH_3)_2N$ , Cl,  $NO_2$ ) and V the corresponding IX ( $R'=COOC_2H_5$ ,  $R=(CH_3)_2N$ , Cl,  $NO_2$ ) also are formed with yields lowered in the order of  $R=Cl$ ,  $(CH_3)_2N$ ,  $NO_2$ . In case of

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I ( $R=(CH_3)_2N$ , Cl), the influence of a para-substitute on the reaction of the condensation is explained by the increase of the permanent polarisation of the bond C+N because of the electrometric effect of  $(CH_3)_2N$  and Cl. The lower yields of IX in case of using I ( $R=NO_2$ ) are explained by the lowering of the permanent polarisation of the bond C-N. 0.04 mole  $\alpha$ - $ClC_6H_4CHO$ , 0.16 mole of acetamide and 20 cc  $(CH_3CO)_2O$  are heated 4 hours at  $\sim 100^\circ$ , cooled with ice, and I is precipitated ( $R=Cl$ ), yield 47.8%, m.p.  $274-275^\circ$  (decomp. from alcohol). I and IV-V are taken for condensation in proportion 0.04:0.04 moles. IX were obtained (indicated are correspondingly  $R'$ , R, amount  $(CH_3CO)_2O$  in cc, time of heating in hours, reaction temperature in  $^\circ C$ , yield in percent, melting p. in  $^\circ C$ ): CH,  $(CH_3)_2N$ , 40.8,  $100^\circ$ , 82, 8.124.5 (from alcohol); CN, Cl, 80, 3 120-125, 54.1, 92 (from alcohol); CN,  $NO_2$  40.4, 145-150, 23.2, 167-168 (from alcohol);

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STE AN JOUR 11.  
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Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19130

Author : Stefanovich, Vandzhel, Boyanovich.

Inst : ~~Stefanovich~~

Title : On the Reactive Ability of Diamides. IX. Reactions of  
Parasubstituted Aldehydes with Compounds Containing an  
Active Methylene Group in the Presence of Acetamide.

Orig Pub: Glasnik Khim. Drushta, 1955, 9, No 20, 545-552

Abstract: Since at the condensation of para-subst. diamides with  
compounds, containing an active methylene group, in con-  
trast to unsubstituted diamides, the elimination of both  
amide radicals occurs, the behavior of para-subst. alde-  
hydes in conditions of the same condensation is investi-  
gated. At these conditions the condensation of -dime-  
thylaminobenzaldehyde (I) with  $\text{CH}_2(\text{CN})\text{COOC}_2\text{H}_5$  (II) and  
 $\text{CH}_2(\text{COOC}_2\text{H}_5)_2$  (III) in the presence of acetamide (IV) and

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(CH<sub>3</sub>CO)<sub>2</sub>O (V), or in the presence of piperidine (VI) produces correspondingly  $-(CH_3)_2NC_6H_4CH=C(CN)COOC_2H_5$  (VII) and  $-(CH_3)_2NC_6H_4-CH=C(COOC_2H_5)_2$  (VIII), i.e. the same products, as in the case of condensation of  $-(CH_3)_2NC_6H_4CH(NHCOCH_3)_2$  (IX) with II and III. I differs from IX, because if condensates also with CH<sub>2</sub>(NO<sub>2</sub>)COOC<sub>2</sub>H<sub>5</sub> (X), as a result of which both isomeres of  $-(CH_3)_2NC_6H_4CH=C(NO_2)COOC_2H_5$  (XI) are obtained, one of which upon recrystallization is transformed into the stable form. The condensation of I with acetoacetic ester (XII) in the presence of VI yields the diethyl ester of  $\alpha, \alpha'$ -diacetyl- $\beta$ -( $\gamma$ -dimethylaminophenyl)-glutaric acid (XIII); however in the presence of IV and V the condensation did not occur, because by heating for 2 hours only IX was obtained, and by heating for 4 hours. resin.  $\gamma$ -Nitrobenzaldehyde (XIV) in the presence of IV and V does not condensate with

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III, X, and XII, most probably as a result of the stability of the easily obtained in the conditions of condensation of  $\gamma$ -nitrobenzaldehyde, N,N-diacetamide and its slight solubility in VI; however, with II it yields  $-(CH_3)_2NC_6H_4CH=C(CN)COOC_2H_5$  (XV). In the presence of VI the condensation of XIV with III and XII takes place. I and II (0.04 mole each) and dissolved in 20 cc alcohol and at 0° is added during 30 min. 6 drops of VI, heated 2-3 hours at ~100°; the yield is VII-90.3% (in the presence of IV and V, yield 66.7%), m.p. 124.5° (from alc.). In an analogical manner, from I and III is obtained VIII, yield 66.6%, m.p. 110.5° (from alc.); from I and XII (in a solution CH<sub>3</sub>OH) is obtained XIII, yield 27.4%, m.p. 156.5° (from CH<sub>3</sub>OH); from XIV and III --  $\gamma$ -NO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CH=C(COOC<sub>2</sub>H<sub>5</sub>)<sub>2</sub>, yield 75.9%, m.p. 94° (from alc.); from XIV and XII -- ethyl ester  $\alpha$ -acetyl- $\beta$ -( $\gamma$ -nitrophenyl)-acrylic acid,

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yield 45.7%, m.p. 164° (from alc.) 0.04 mole of I, X, IV, and 20 cc of V are heated (3-4 hours, 100°), after 14 days (20°) poured in water, after 24 hours decanted and XI extracted with ether, yield 66.4%, m.p. 94° (from CH<sub>3</sub>OH). II and XIV (0.04 mole each) in 20 cc alcohol are cooled to 0°, 0.25 cc C<sub>2</sub>H<sub>5</sub>ONa added and left standing for 24 hours at ~20°; yield is XV-93.5%, m.p. 167-168° (from alc.)

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STEFANOVIC, D.; JANJIC, T.

New method for separating magnesium, calcium, strontium<sup>88</sup> and barium by paper chromatography. Pt. 1. p. 569. GLASNIK. Beograd. Vol. 20, no. 9, 1955.

So. East European Accessions List      Vol. 5, No. 9      September, 1956

STEFANOVIC, D.; PREKAJSKI, P.; MIHAILOVIC, M.

Oxidator products obtained from 2, 4-dihydroxyquinoline and from their derivatives.  
p. 157.

(GEODETSKI LIST, Vol. 11, no. 1/2, Jan./Feb. 1957, Yugoslavia.)

SC: Monthly List of East European Accessions (EEAL) IC, Vol. 6, no. 7, July 1957. Uncl.

STEFANOVIC, Milutin; TASOVAC, Ruzica; STEFANOVIC, Dorde

Reactions of bisamides. XIII. The condensation of benzylidene-N,N'-bisacetamide with 1-phenyl-3-methyl-5-pyrazolone. Gl.hem.dr. 23/24 no.1/2:11-15 '58/59. (KRAI 9:5)

1. Faculty of Science, Institute of Chemistry, Beograd.  
(Amides) (Benzylideneposacetamide)  
(Methylphenylpyrazolinone) (Phenylmethylpyrazolone)

STEFANOVIC, Dorde; VANDEL, Vera

Reactions of bisamides. XIV. Reactions of N, N'-benzylidenebisacetamide  
with ketones and diketones. Gl hem dr 23/24 no.5/6:253-259 '58/59.  
(EEAI 10:4)

1. Institute of Chemistry, Beograd; Fakultety of Sciences, Institute of  
Chemistry, Beograd.

(Amides)

(Benzylidenebisacetamide)

(Ketones)

STEFANOVIĆ, D.; KILAJIĆ, S.; JEREMIĆ, D.

An unusual degradation in the pyrazoline ring obtained by the addition of diazomethane on the ethylenic bond. p. 73.

Srpska akademija nauka. Odoljenje prirodno-matematičkih nauka. GLAS. Beograd, Yugoslavia. Vol. 233, 1959.

Monthly list of East European Accessions (TEI) 13, Vol. 6, no. 8, Aug. 1959.

Encl.

SABENOVIC, D.; HANISAVLJEVIC-JAKOVljeVIC, P.

Reaction properties of the N, N-bisurethans II. p. 81.

Srpska akademija nauka. Odeljenje prirodno-matematičkih nauka. GLAS.  
 Beograd, Yugoslavia. Vol. 233, 1959.

Monthly List of East European Accessions (EEA) IC, Vol. 6, no. 6, Aug. 1969.

Uncl.

STERNICOVIC, D.; VIGOROVIC, D.

Characteristics of oil-shale kerosene. p. 101.

Srpska akademija nauka. Odeljenje prirodno-matematičkih nauka. GLAS.  
Beograd, Yugoslavia. Vol. 233, 1959.

Monthly List of East European Accessions (EEA) IC, Vol. 8, no. 8, Aug. 1959.

Encl.

STEFANOVIC, D.; JANJIĆ, T.

Separation of cis-trans isomeric inorganic compounds by means of paper chromatography and effect of the configuration on  $R_f$ -values. p. 117.

Sveska akademije nauka. Odeljenje prirodno-matematičkih nauka. GLAS.  
Beograd, Yugoslavia. Vol. 233, 1959.

Monthly list of East European Accessions (EEAI) 10, Vol. 6, no. 8, Aug. 1959.

Incl.

STEFANOVIC, D.; MIHAILOVIC, M.Lj.; LORENC, Ljubinka.; MAMUZIC, R.I.

Anhydroblisatic acid (6,12-oza-5,6,11,12-tetrahydrophenhomazine-  
-6,12-dicarboxylic acid). Glas Prir mat SANU 241 no.18:1-19 '60.

STEFANOVIC, D.; PAVICIC-WASS, M.; LORENC, Ijubinka; MIHAILOVIC, M.Lj.

Condensation of isatic acid with diketones. Glas Prir mat SANU  
241 no.18:41-51 '60.

1. Institute of Chemistry of the Faculty of Science of the  
University in Beograd

STEFANOVIC, D.; LORENC, Ljubinka; MIHAILOVIC, Mihailo Lj.

Condensations of isatic acid with carbamides, ethyl carbamate, and guanidine. Glas SANU 12 no.2:188 '60 [publ.'62].

1. Dopisni clan Srpske akademije nauka i umetnosti, Beograd (for Stefanovic).

STEFANOVIC, D.; OBRENOVIC, Dragica; VAJGAND, V.; ZIVKOVIC, N.

Electrolytic separation of copper from silver alloys. Glas prirode  
SAN no.253:53-71 '60. (EAI 10:5)

1. Faculty of Sciences, Institute of Chemistry, Beograd.  
(Electrolysis) (Copper) (Silver)

STEFANOVIC, Dorde, prof., dr.; JANJNIC, Tomislav; HRANISAVLJEVIC, Jovan

$R_f$ -values of cis-trans isomeric dicarboxylic acids of ethylenic series. Glas Hem dr 25/26 no.1/2:89-92 '61.

1. Prirodno-matematicki fakultet, Hemijski institut, Beograd.
2. Clan Uredivackog odbora, "Glasnik Hemijskog drustva Beograd" (for Stefanovic).

(Dicarboxylic acids) (Ethylene compounds)

STEFANOVIC, Dorde; VITOROVIC, Dragomir; DURICIC, Milica

Nature of the organic substances of oil shale, studied by means of oxidation with potassium permanganate in acetone solution. L. Oxidation of Colorado oil shale. Glas Hem dr 25/26 no.5/7:411-424 '60/'61.

1. Prirodno-matematicki fakultet, Hemijski institut, Beograd.

STEFANOVIC, Dorde; VITOROVIC, Dragomir; DURICIC, Milica

Oxidation of the Aleksinac oil shale kerogen with  
potassium permanganate solution. Glas Hem dr 25/26  
no.5/7:425-437 '60/'61.

1. Prirodno-matematički fakultet, Hemijski institut,  
Beograd.

STEFANOVIC, D.; LORENC, Ljubinka; MIHAJLOVIC, Lj.

Condensations of isatic acid with ureas, ethyl carbamate and guanidine.  
Glas priro mat SANU 245 no.21:53-72 '61.

1. Faculty of Science, Institute of Chemistry, University of Beograd.

(Isatic acid)

(Condensation products(Chemistry))

STEFANOVIC, D.; STOJILJKOVIC, Aleksandra; STEFANOVIC, M.

Synthesis of  $\alpha$ -methyl- $\beta$ -phenylisocysteine, and the preparation of substituted thiazolidine-5-carboxylic acids. Glas prirode SANU no. 253:13-24 '63.

1. Institute of Chemistry, Faculty of Sciences, University of Beograd.

STEFANOVIC, Dorde; MLADENOVIC, Slobodan; MILOVANOVIC, Aleksandar;  
STEFANOVIC, Milutin

Reactivity of bisamide condensation products. Glas Hem dr  
28 no. 1: 31-36 '63.

1. Prirodno-matematički fakultet, Hemijski institut, Beograd.

STEFANOVIC, D.D.

Study and synthesis of the derivatives of  $\alpha$ -mercaptoazo compounds. Sui se Young 2 no.3:81 J. 64.

1. Pharmaceutical Faculty, University of Belgrade, Belgrade.

YAN 11-1

STEFANOVIC, Djurica; DJORDJEVIC, Ljubinko; JOVASEVIC, Angela and NIKOLIC, Dusan; Department of Obstetrics and Gynaecology, General Hospital (Ginekolosko-akusersko odeljenje Opste bolnice), Head (Upravnik) Dr Djurica STEFANOVIC; and Department of Surgery, General Hospital (Hirurško odeljenje Opste bolnice), Head (Upravnik) Prim Dr Dragoljub DJUKOVIC, Kraljevo.

"Thrombosis of the Inferior Vena Cava in an Ilio-Femoral Thrombophlebitis in Pregnancy"

Reprints: Beogradska Arhiva za Specijalno Lekarstvo, Vol 93, No 4, Apr 1965; p. 35-37.

Abstract [English summary modified]: Report on young primipara at term with primary severe leg thrombophlebitis, refractory to anticoagulant and antibiotic treatment, requiring eventual surgery with complete recovery after a stormy course and 57 days' hospitalization. 6 Yugoslav, 8 Yugoslav and 10 Western references; manuscript received 6 Feb 64.

DAMANSKI, Aleksandar F.; STEFANOVIC, Danica D.

Contribution to the knowledge of aromatic sulfur compounds of the thianthrene type. Glas Hem dr 25/26 no.1/2:93-95 '61.

1. Farmaceutski fakultet, Institut za organsku hemiju, Beograd.

(Sulfur compounds) (Thianthrene)

STEFANOVIC, Djurica, dr.; JOVASEVIC, Angela; NIKOLIC, Dusan

Preventive and therapic appendenctomy in gynecology and  
obstetrics. Srpski arh. celok. lek. 92 no.10:979-983 0 '64

1. Ginekolosko-akusersko odeljenje Opste bolnice u Kraljevu  
(Mecelnik: dr. Djurica Stefanovic).

STEFANOVIC, Dragoljub, inz., docent

Paleomagnetic methods in prospecting. Tehnika Jug:Suppl.:  
Rudarstvo metalurg 14 no.2:269-275 Fe '63.

1. Rudarsko-geoloski fakultet Univerziteta u Beogradu.

STEFANOVIC, Durica

A case of dermoid cyst ruptured in the course of labor. Srpski  
arh. celok. lek. 91 no.3:289-292 Mr '63.

1. Ginekolosko-akusersko odeljenje Opste bolnice u Negotinu

Sef: dr Durica Stefanovic.

(DERMOID CYST) (LABOR COMPLICATIONS)

(DOUGLAS' POUCH)

S

STEFANOVIC, Durica; NIKOLIC, Dusan

On a case of cervical placenta praevia. Srpski arh. celok.  
lek. 91 no.5:537-540 My '63.

1. Ginekolosko odeljenje Opste bolnice u Kraljevu Nacelnik:  
dr Durica Stefanovic.  
(PLACENTA PRAEVIA)

S

STEFANOVIC, Durica; JOVASEVIC, Angela; NIKOLIC, Dusan

Role of vaginal hysterectomy in the treatment of uterine prolapse.  
Srpski arch. celok. lek. 92 no.3:309-311 Mr '64.

1. Ginekolosko odeljenje Opste bolnice u Kraljevu (Macelnik: dr.  
Durica Stefanovic).

CA

Gasparini's method for the determination of sulfur in organic substances by electrooxidation. Gjorgje Stefanovic and Milutin Stefanovic (Faculty Sci., Belgrade, Yugoslavia). *Anal. Chim. Acta* 6, 506-9 (1952)(in English).— The Gasparini method for destroying org. substances by electrooxidation in  $\text{HNO}_3$  can replace the classical method of Carius for the detn. of S in org. materials, and is particularly valuable for routine serial detns. Landon A. Sarver

STEFANOVIC, G.  
homocyclic

Chem<sup>3</sup>  
(R)

Reactions of bisimides. IV. Synthesis of derivatives of  $\alpha$ -cyano- $\beta$ -arylacrylic [1-cyano-2-arylethylene-1-carboxylic] acids. G. Stefanovic and Z. Nikic [*J. org. Chem.*, 1952, 17, 1305-1307; cf. A., 1953, II, 484].—Reaction of bisimides with  $\text{CN}\cdot\text{CH}_2\cdot\text{CO}_2\text{Et}$  gives 1-cyano-2-arylethylene-1-carboxylates.

Heating  $\text{CHPh}(\text{NHAc})_2$  (I) (m.p.  $240^\circ$ ) (0.1) with  $\text{CN}\cdot\text{CH}_2\cdot\text{CO}_2\text{Et}$  (II) (0.1 mol.) at  $140\text{--}150^\circ$  (bath temp.: 8 hr.) gives  $\text{NH}_2\text{Ac}$  (III) and  $\text{CHPh}\cdot\text{C}(\text{CN})\cdot\text{CO}_2\text{Et}$  (IV) (60.2%), m.p.  $51^\circ$ . Keeping I (0.05) and II (0.05) with  $\text{Ac}_2\text{O}$  (0.25 mol.) at  $140\text{--}150^\circ$  (4 hr.), and then at  $\sim 0^\circ$  (48 hr.), yields III and IV (10.8%). Keeping  $p\text{-OMe}\cdot\text{C}_6\text{H}_4\cdot\text{CH}(\text{NHAc})_2$  (0.05), m.p.  $231^\circ$ , with II (0.05 mol.) at  $140\text{--}150^\circ$  similarly affords  $p\text{-OMe}\cdot\text{C}_6\text{H}_4\cdot\text{CH}\cdot\text{C}(\text{CN})\cdot\text{CO}_2\text{Et}$  (82.2%), m.p.  $85^\circ$ . 3 : 4 : 1- $\text{CH}_2\text{O}_2\cdot\text{C}_6\text{H}_5\cdot\text{CH}\cdot\text{C}(\text{CN})\cdot\text{CO}_2\text{Et}$  (90.8%), m.p.  $106^\circ$  (lit., 106,  $110^\circ$ ), is obtained similarly. J. N. ASHLEY.

7-8-54

Reactions of bisamides. V. Synthesis of derivatives of  $\beta$ -aryl- $\beta$ -amino acids. Giorgio Stefanović, Slavko Mihajlović, and Milutin Stojanović, *Serbian Acad. Sci., Belgrade, Yugoslavia*, J. Org. Chem. 18, 1467-72 (1953); cf. C.A. 47, 8685d.—PhCH(NHAc)<sub>2</sub> (I) (10.3 g.), 8 g. CH<sub>2</sub>(CO<sub>2</sub>Et)<sub>2</sub> (II), and 25 cc. Ac<sub>2</sub>O refluxed 3 hrs. at 150-5°, the mixt. concd. *in vacuo*, and the residue washed with H<sub>2</sub>O and recrystd. from 50% EtOH give 62.1% AcNHCHPh-CH(CO<sub>2</sub>Et)<sub>2</sub> (III), m. 85°, is also obtained in 11% yield from 10.3 g. I and 24 g. II heated 3 hrs. at 180°. Keeping 5 g. III in 40 cc. 10% aq. NaOH 24 hrs. at 20°, neutralizing the mixt. with HCl to Congo red, evapg. it *in vacuo*, and extg. the residue with a little abs. EtOH give the free malonic acid (IV), m. 75°, solidifying, and remelting around 150-64°. IV heated 8 hrs. at 115-20° gives 97% AcNHCHPh-CH(CO<sub>2</sub>H)<sub>2</sub> (V), m. 164°, also obtained when 5 g. EtO<sub>2</sub>CCHAcCHPhNHAc (VI), prepd. from I and AcCH(CO<sub>2</sub>Et), is treated with 40 cc. 10% NaOH 3 days at 20° and the mixt. neutralized with 10% HCl. *p*-MeOC<sub>6</sub>H<sub>4</sub>CH(NHAc)<sub>2</sub> (12 g.), 8 g. II, and 50 cc. Ac<sub>2</sub>O give 44.5% *p*-MeOC<sub>6</sub>H<sub>4</sub> analog of III, m. 85°; *p*-MeOC<sub>6</sub>H<sub>4</sub> analog of V, 100%, m. 171-3°, also obtained from the *p*-MeOC<sub>6</sub>H<sub>4</sub> analog of VI. 3,4-CH<sub>2</sub>O<sub>2</sub>C<sub>6</sub>H<sub>3</sub> analog of III, prepd. from 3,4-CH<sub>2</sub>O<sub>2</sub>C<sub>6</sub>H<sub>3</sub>CH(NHAc)<sub>2</sub> II, and Ac<sub>2</sub>O, 62.6% yield, m. 95°; 3,4-CH<sub>2</sub>O<sub>2</sub>C<sub>6</sub>H<sub>3</sub> analog of V, 100%, m. 102-6°, also obtained in 98.7% yield from the 3,4-CH<sub>2</sub>O<sub>2</sub>C<sub>6</sub>H<sub>3</sub> analog of VI. 3,4-(MeO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub> analog of V, 85.8%, m. 164-5°. Refluxing 10.3 g. I and 9.4 g. EtCH(CO<sub>2</sub>Et)<sub>2</sub> in 25 cc. Ac<sub>2</sub>O 5 hrs. gives 12.8 g. crude AcNHCHPh-CH(CO<sub>2</sub>Et)<sub>2</sub>, sapond. with 10% NaOH 8 days at 20° to 20.5% AcNHCHPh-CH(CO<sub>2</sub>H)(CO<sub>2</sub>Et), m. 184°, which, refluxed 2 hrs. (or kept 60 days at 20°) with

F. E. Brauns

STEFANOVIĆ, G

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Synthesis of tetrahydroquinoline-3-alkylcarboxylic acids. I. Synthesis of 2-carboxy-4-hydroxy-3-quinolinealkylcarboxylic acids. Gjorgje Stefanović and Milenko B. Čelan (Univ. Belgrade). *Rec. trav. chim.* 72, 825-32 (1953) (in English).—Trichethyl esters of  $\alpha$ -oxalylcarboxylic acids (I),  $\text{EtO}_2\text{C}-\text{CO}-\text{CH}(\text{CO}_2\text{Et})(\text{CH}_2)_n\text{CO}_2\text{Et}$ , were condensed with  $\text{PhNH}_2$  and the anils (II),  $\text{C}_6\text{H}_5\text{N}:\text{C}(\text{CO}_2\text{Et})\text{CH}(\text{CO}_2\text{Et})-\text{CO}_2\text{Et}(\text{C}_6\text{H}_5)_2$ , thus obtained were cyclized to 2-carboxy-4-hydroxy-3-quinoline alkylcarboxylic acids (III). The esters of III as well as the II could not be prepd. in a pure state of analysis. The III acids are sol. in EtOH, insol. in  $\text{C}_6\text{H}_6$  and sparingly sol. in hot  $\text{H}_2\text{O}$ ; when heated above their m. p. they decarboxylate to 4-hydroxy-3-quinoline-alkylcarboxylic acids. Attempts to use the esters of formyl-dicarboxylic acids instead of I did not lead to quinolines but to lactams. Et ethoxalylsuccinate (I,  $n = 1$ ) was prepared (cf. C.A. 5, 3240) from Et succinate (0.34 mole), Et oxalate (0.34 mole), K (0.34 mole), abs. EtOH (40 g.), and 200 cc. anhyd.  $\text{Et}_2\text{O}$ , in 80% yield. Et  $\alpha$ -ethoxalylglutarate (I,  $n = 2$ ) was prepared (cf. C.A. 6, 1749e) in 77% yield from Et glutarate (50 g.), Et oxalate (46.6 g.), Na (7.3 g.), abs. EtOH (14.7 g.) and 30 cc. anhyd.  $\text{Et}_2\text{O}$  (77% yield). The prepu. of the esters I ( $n = 3$  to 7) according to Goldberg, et al. (C.A. 41, 3781a) is described (yields 62-8%). Et ethoxalylsuccinate anil (II,  $n = 1$ ) was prepd. from 0.25 mole of I ( $n = 1$ ) and freshly distd.  $\text{PhNH}_2$ , 6 hrs. at  $0^\circ$  and one week at room-temp. The  $\text{H}_2\text{O}$  was sepd., the residue dissolved in 100 cc. of  $\text{Et}_2\text{O}$ , dried with  $\text{Na}_2\text{SO}_4$ , and the solvent evapd. at room temp. *in vacuo* to yield 76.6 g. of the anil, viscous red oil. The esters II ( $n = 2$  to 7) were prepd. the same way. The esters were ring-closed without further purification: To paraffin oil (300 cc.) heated to  $240^\circ$ , was added with stirring 19 g. of II ( $n = 1$ ). The EtOH formed was distd. during the addn. The flask was cooled rapidly with stirring. The red, sticky mass was filtered, and washed with petroleum ether to yield 10.5 g. of Et 2-carboxy-4-hydroxy-3-quinolineacetate, pale yellow crystals, m.  $181^\circ$  (from  $\text{C}_6\text{H}_6$ ). The free acid was obtained by hydrolysis of 2 g. of the crude ester in 10 cc. of 10% NaOH, m.  $231^\circ$  (from  $\text{H}_2\text{O}$ ), pale yellow needles. The following esters and acids (III) were obtained in a similar way: 2-carboxy-4-hydroxy-3-quinolinepropionic acid, pale yellow, m.  $204^\circ$  (from  $\text{H}_2\text{O}$ ), from the Et ester (yield 96%), m.  $163^\circ$  (from EtOH). 3-Carboxy-4-hydroxy-3-quinolinebutyric acid, pale yellow, m.  $230^\circ$  (from  $\text{H}_2\text{O}$ ) from the Et ester (yield 50-75%) m.  $158^\circ$  (from 90% EtOH). 2-Carboxy-4-hydroxy-3-quinolinevaleric acid, white crystals, m.  $227^\circ$  (from  $\text{H}_2\text{O}$ ), from the Et ester (yield 74-90%), m.  $128^\circ$  (from 90% EtOH). 1-Carboxy-4-hydroxy-3-quinolinecaproic acid, yellow, m.  $225^\circ$  (from EtOH) from the Et ester (yield 59-80%), m.  $94-6^\circ$  (purified by chromatography on  $\text{Al}_2\text{O}_3$  with  $\text{C}_6\text{H}_6$  solvent, EtOH eluate). 2-Carboxy-4-hydroxy-3-quinolineheptic acid, white crystals, m.  $210^\circ$  (from  $\text{H}_2\text{O}$ ), Et ester, m.  $78-80^\circ$  (by chromatography as above). 2-Carboxy-4-hydroxy-3-quinolinecaprylic acid, yellow needles, m.  $190^\circ$  (from  $\text{H}_2\text{O}$ ), Et ester (yield 74-8%), m.  $75-7^\circ$  (purified by chromatography). The last 3 acids were also purified by dissolving several times in dil.  $\text{NH}_4\text{OH}$ , filtering and pptg. with  $\text{HCl}$ . All the Et esters are pale yellow to yellow.

Gregor H. Riesser

STEFANOVIC, GIORGIE

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/ Separation of stereoisomeric inorganic compounds by  
paper chromatography. Giorgie Stefanovic and Tomislav  
Jandric (Fac. sci., Belgrade, Yugoslavia). *Anal. Chim.*  
*Acta* 11, 550-3 (1954) (in English).--It has been shown that  
cis and trans stereoisomeric forms of inorg. complex salts  
can be sepd. by paper chromatography. In all the cases  
studied cis forms had remarkably greater  $R_f$  values than  
the trans ones. It has also been found that the racemic  
complex compds. can be resolved into their optically active  
components by paper chromatography by adding an opti-  
cally active compd. to the solvent used in the chromatog-  
raphy. Landon A. Sarver

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SERBIA/Organic Chemistry. Synthetic Organic Chemistry.

Abs Jour: Ref Zhur-khimiya, No 6, 1957, 19243.

Author : Stefanovich, Stefanovich, Milanovich.

Inst :

Title : On the Reactive Power of Diamides. VII. Condensation of Aliphatic and Aromatic Diamides with 4-oxothiazolidine-thione-2 (rhodanine)

Orig Pub: Glasnik, khem. drushtva, 1955, 20, No 5, 313-316

Abstract: At the condensation of N,N'-benzylidenebisacetamide (I) with 4-oxothiazolidinethione-2(II) in the presence of glac.  $\text{CH}_3\text{COOH}$ (III) 4-oxo-5-benzylidenethiazolidine-thione-2 (IV) with a quantitative yield is obtained, and at the condensation of N,N'-ethylidenebisacetamide (V) with II 4-oxo-5-ethylidenethiazolidinethione-2(IV) is obtained. Thus in both cases both amido-groups of the bisamides react, and the condensation of V with II failed

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STEFANOVIC, G.

✓ 919. New methods for the separation of cations by paper chromatography. G. Stefanovic, T. Janjic and R. Crnojevic (Inst. Chem., Belgrade, Yugoslavia). *Bull. Soc. Chim. Belgrade*, 1955, 20 (5), 343-348.—Some previous methods of separating cations by paper chromatography have been confirmed. Sharper separations are obtained with the solvents described below. Ascending chromatography on Whatman No. 1 paper is used with a solvent movement of 30 cm in 21 hr.  $R_f$  values of 0.07, 0.74 and 0.63 are found for  $Fe^{+++}$ ,  $Al^{+++}$  and  $Cr^{+++}$ , respectively, in a soln. of 4 g of  $NH_4SCN$  in 20 ml of 2 *N* HCl mixed with 20 ml of methanol and 60 ml of *n*-propanol.  $R_f$  values of 0.61, 0.39 and 0.75 are found for  $As^{+++}$ ,  $Sb^{+++}$  and  $Sn^{+++}$ , respectively, in a soln. of 4 g of tartaric acid in 20 ml of water mixed with 20 ml of *n*-butanol.

A. B. DENSHAM

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 ✓ New method for separation of magnesium, calcium, strontium and barium by paper chromatography. II. G. Stefanovic and J. Janzic (Bull. Soc. chim. Belgrade, 1956, 21, 125-128). The method previously described (cf. J.A.C. Abstr., 1956, ii, 170) was simplified by carrying out chromatographic separation on untreated paper and adding the salts directly to the solvent. Best results were obtained with Li salts. Solvent compositions and corresponding  $R_f$  values are given. (From English summary.)

J.S.C.

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Oxidation products of 2,4-dihydroxyquinoline and related compounds. Gjerdje Stefanovic, Petar Prekajski, and Mihailo I. J. Milankovic (Inst. Chemistry, Beograd, Yugoslavia). *Glasnik Khim. Drustva, Beograd* 21, 157-62 (1956) (English summary 102-3).—The oxidn. of 2,4-dihydroxyquinoline (I) with 3% KMnO<sub>4</sub> in aq. soln. with or without KOH did not yield, as previously reported by Meyer and Heimann (*CA* 30, 7114<sup>9</sup>), 2,4-dihydroxypyridine-5,8-dicarboxylic acid (II), but only *o*-carboxyoxanilic acid (III) as the main product. The yield of III depended on the ratio of oxidizing agent to I; with an amt. of O equiv. to 9 O/mole I, the yield of III was 26.5%, with an a. t. of 5 O it was increased to 40%. The result could be expected from consideration of the mol. of I; the pyridine nucleus in I, being heavily substituted, was much more susceptible to attack by the oxidizing agent than the unsubstituted benzene ring, and the normal oxidn. product should thus have been a substituted *o*-aminobenzoic acid rather than a pyridine-dicarboxylic acid. The Me 2,4-dihydroxyquinolinecarboxylate, prepd. according to Koller (*CA* 21, 2475), was also oxidized with KMnO<sub>4</sub> in aq. soln. in order to ascertain the position of the ester group. The only product isolated was again III (55%), a further evidence that the carboxymethoxy group was attached to C-3 of I.

R. Zhivadnovich---

STEFANOVIC, *Gjorgje*

Distr: 482c(j)

Preparation of symmetrical bisamides containing condensed, heterocyclic, and alicyclic rings in the aldehyde group. II. Gjorgje Stefanovic, Jelena Bojanovic, Milanka Corbić, and Miroslav Lj. Mihaljević (*Priručnik mat. fak.*, Belgrade, Yugoslavia). *Glasnik Khim. Drustva, Beograd* 22, 29-42(1957); cf. C.A. 52, 16350c.—Several new bisamides were synthesized by condensing acetamide (I) and benzamide (II) with various aldehydes contg. heterocyclic and alicyclic rings in the  $\alpha$ -position: 3-thenylidene- $N,N'$ -bisacetamide, m. 231°; 3-thenylidene- $N,N'$ -bisbenzamide, m. 213-14°; 2-pyridylmethylene- $N,N'$ -bisbenzamide, m. 211°; 3-pyridylmethylene- $N,N'$ -bisbenzamide, m. 217-18°; and 4-pyridylmethylene- $N,N'$ -bisacetamide, m. 236-0°; 1-acetyl-3-indolylmethylene- $N,N'$ -bisacetamide, m. 207°; 1-acetyl-3-indolylmethylene- $N,N'$ -bisbenzamide, m. 254-5°; cyclohexylidene- $N,N'$ -bisacetamide, m. 279.5°; cyclohexylidene- $N,N'$ -bisbenzamide, m. 250° (decompn.). Condensation of pyrrole-2-carboxaldehyde with I and II did not yield the expected bisamides. The new bisamides were prepd. in 27-90% yield by heating the aldehyde and amide on a water bath in the presence of  $Ac_2O$  or by directly heating the starting products without  $Ac_2O$  at 150-80°. At the same time a study was made of the effect of heating period on the yield of bisamide in the condensations of aldehydes and acid amides in the presence of  $Ac_2O$ . With aliphatic aldehydes it was found that the y. ds were best after heating the mixt. 3-4 hrs. Cinnamaldehyde behaved similarly whereas with cyclohexanecarboxaldehyde the yields were best after 1.5 hrs. heating. With aromatic aldehydes however, optimum heating periods were somewhat longer (7-10 hrs.).

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STEFANOVIĆ G.

Distr: 4E2c(j) 1

Reactions of bisamides, XII. Condensations of aromatic bisamides with phenylacetonitrile, barbituric acid, and 2,5-dioxopiperazine. Georgije Stefanović, Petar Prekajski, and Mihailo L. Mihaljević (Prirodno-mat. fak., Belgrade, Yugoslavia). *Glasnik Khim. Drustva, Beograd* 22, 113-20(1957); cf. C.A. 52, 16278h. — A study was made of the reactions of *N,N'*-benzylidenebisacetamide (I) with phenylacetonitrile (II), barbituric acid (III), and 2,5-dioxopiperazine (IV). Attempts to condense II with I in glacial AcOH, in Ac<sub>2</sub>O, in pyridine, or in sealed tubes, failed. Only after prolonged heating at 185° did I and II condense to give 2,3-diphenylacrylonitrile (11%). III, however, readily reacted with I to give 5-benzylidenebarbituric acid, the reaction taking place in glacial AcOH (yield 91%) by direct heating of the starting materials, and in Ac<sub>2</sub>O (61%). Only one methylene group of IV reacted with I in Ac<sub>2</sub>O to give 20% 3-( $\alpha$ -acetylamino-benzyl)-1,4-diacetyl-2,5-dioxopiperazine (V), light brown, m. 190.5° (EtOH). Attempts to condense I and IV in AcOH or by heating without any solvent were unsuccessful. By partial alk. hydrolysis of V, a new substituted dipeptide was obtained in quantitative yield: HO<sub>2</sub>CCH<sub>2</sub>NAcCOCH(NHAc)CH<sub>2</sub>Ph, m. 218° (decompn.) (water). Z. Nikić